Concept of Digital Information Technology Implementation of the Mosque XYZ in Industry 4.0 Era

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Abstract: The existence of the mosque and the organization underneath is essential to develop various models in its function. The abilities and development of adolescent individuals are able to become a reinforcement and agents of the change of Ummah in the organization. Childhood through adolescence requires coaching and a strong will so that they are able to be independent so that the potential in the organization and its productive resources have significant prospects in the present and the future. For this reason, it is time for the effectiveness of the functions of mosques to be one of the potentials of community development. More broadly, the role of the mosque is a place used for discussion, study, deciding on the problems of the Ummah, and others. What is raised in the function model of the mosque is how to utilize the mosque more broadly for Muslims, not only parents but also society in general, especially among children and adolescents. This paper proposed a function model of the mosque with the digital information technology implementation. This is expected that the mosque's function is not just a place of worship but is more extensive than that.

1 INTRODUCTION

The young people of the mosque is one of the elements of the mosque management who have several strategic roles in the process of achieving and developing young cadres in interacting and prospering mosque activities by targeting the optimization of the youth's role in supporting work programs for the benefit of the people (Muchlis et al., 2019). The existence of a mosque youth organization under the field of youth coaching is fundamental to do the development of models with a variety of methods so that the abilities and development of individual adolescents can become a reinforcer and agent of the changing people in the organization. The place to socialize and often meet among young people is an important thing to do to be able to raise the potential that exists in young people so that moral and spiritual aspects are formed in addition to fostering togetherness in the organization of mosque youth organizations (Karimshah et al., 2014).

Childhood through adolescence requires coaching and a strong will so that a young man can be independent so that the potential in the organization and productive resources of adolescent mosques have fundamental prospects in the present and the future (Batri, 2013). In a further view, the existence of mosque youth is one of the resources that must be able to be optimized. It needs to get the attention and guidance of all elements of society without exception (Sapri et al., 2016).

For this reason, it is time for the effectiveness of the functions of mosques to be one of the potentials of community development. The character of the young people in the mosque should be able to become one of the potential development of the people. The personality of the mosque's youths that are expected by the people and nation can be formed into a young generation that is useful for himself and his family. With the above arguments, it is necessary to conduct many training and use of information technology in accessing the internet within the mosque. At present many mosques only function as places of worship, whereas more broadly, the function of the mosque is a place used for discussion, study, deciding on the problems of the Ummah, and others (Sumaryanto et al., 2016). What is raised in the function model of the mosque is how to utilize the mosque more broadly for Muslims, not only parents but also society in general, especially among children and adolescents (Bakri et al., 2018). This paper proposes a function model of the mosque in the implementation of the technology as the development towards the industrial era 4.0. This is expected to be able to encourage more worshipers

to use internet features in the mosque environment so that the mosque's function is not just a place of worship but is more comprehensive than that. The training conducted in the mosque environment consisted of training on installing, setting up, and managing the network, and some managements of the mosque and digital content could be improved.

2 PROBLEM

From a social perspective of the mosque XYZ, the community still carries the principle of mutual cooperation, but many of the mosque's youth are not socializing with each other. Routine activities are also less active. Some agendas go well enough even though few people handle them. In terms of technological insight, young people are not left behind in the development of information technology, and even social media is very familiar and able to use it. Utilization in the field of technology still needs to be developed and directed to support the skills of mosque youth and be encouraged to be active in ongoing activities (Aziz et al.,).

Some Muslim teenagers have not been sufficiently active in mosque youth activities. The activities of the mosque's youths were merely fostering landfill and commemorating Islamic holidays. The potential of the internet has not been utilized optimally and also complaints of mosque congregants with many children playing in the mosque when the prayer takes place since it is disturbing them.

From the determination of the priority scale, it can be taken a solution that has been offered to resolve the problems systematically in accordance with the priority scale of the problems obtained from the observation and discussion with other elements. The solutions which are offered consist of requiring to use internet network access in the mosque area so it makes the mosque as a place that functions more broadly. It also needs a variety of training and coaching, including introducing information technology and directing children to use the play method. The problem list of the condition of the mosque XYZ faced is shown in Figure 1.

But to limitation problem should be in line with the concept of the digital information technology implementation of the mosque XYZ in the issue of the industrial era 4.0, these parts must be directed to this implementation of the digital information technology including the model of technology, knowledge of technology, and its components used.

No.	Problems
1.	Some Muslim teenagers have not been sufficiently active in routine mosque activities
2.	Mosque youth activities that are still monotonous are related to fostering children under five and commemorating Islamic holidays
3.	The potential of the internet around the mosque has not been optimally utilized
4.	The routine activities of the mosque are not socialized well
5.	The functions and benefits of mosques are mostly for mosque worshipers and Muslims only

Figure 1: Problem list of the condition of the mosque XYZ.

3 METHODOLOGY

This paper uses an analytical review that are tailored to the relevant framework. In applying digital information technology in the XYZ mosque, it has used analysis, and of course, it was accompanied by making observations. This analysis is carried out objectively by determining the aims and objectives in implementing digital information technology and also identifying the targets to be achieved to obtain the priority scale (Wibowo, 2018). This paper has applied the Eisenhower Matrix, which can be shown in Figure 2. There are 4 points i.e., do first, do later, eliminate, and delegate. Do first means the problem is very urgent and important to be solved immediately. Do later means the problem is important and not urgent. Eliminate means the problem is not important and not urgent. Delegate means the problem is urgent and not important.
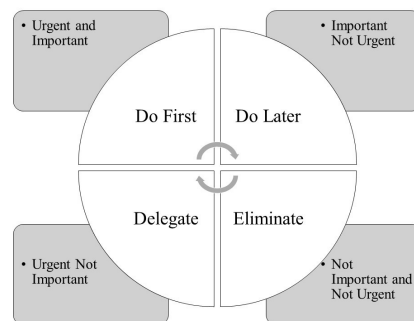

Figure 2: The Eisenhower matrix used to determine the problem to be solved in implementing the digital information technology

From the results of the analysis and observations

made, then make a priority scale by applying what is obtained from it turns out that the mosque XYZ needs a website as transparency of information and to replace paper as a media that is not environmentally friendly. Because the results of the deliberations were decided to reduce the use of paper and go to the platform of go-green. For this purpose, the website becomes an information channel, which then the information and articles will be shared through the Whatsapp group so that no more paper is distributed.

In addition to supporting more recent development activities, it is necessary to get the internet access. So that internet network procurement becomes the second priority by first applying network analysis to measure installation needs. Then apply the network configuration so that only certain people can access it, so it is not misused. If there are pilgrims who want internet access can contact the admin so that their username and password can be configured. With the hotspot, it can be developed to implement of the IoT by utilizing mobile applications and information technology applications (Wibowo and Hidayat, 2017). The design of the digital information technology implementation for the mosque XYZ can be shown in Figure 3.
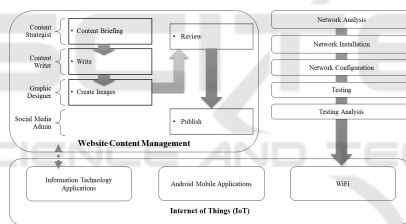

Figure 3: The design of the digital information technology implementation for the mosque XYZ.

In making a website for this mosque XYZ, it requires website content management that consists of capabilities of a content strategist (CS), content writer (CW), graphic designer (GD), and social media admin (SM admin). CS plays a role in web content briefing so that the navigation determinant of content and its contents can be monitored, CW has the role of writing web content to be published, GD plays a role in making images from the theme of the content. The results of the website content then need to be reviewed before it is published. Once published, web content can be shared through social media in order to reduce paper usage. Even though the application of this web content flow can be directly regulated independently by applying another website content management concept. For the simple conditions of this case, just use a few resources that are tailored to the needs and objectives in its implementation. The trend in enforcement is closely related to a small part of information tech-

nology applications.

4 DISCUSSION

The implementation of digital information technology has been applied in the XYZ mosque to be in line with the concept of industry 4.0 is illustrated in accordance with Figure 4.
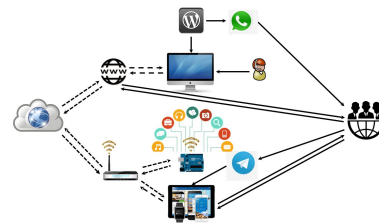

Figure 4: The implementation of digital information technology for the mosque XYZ

The figure above shows that the admin is assigned to manage the content of the website. For the needs of this website so that it is easy to use and more familiar with the operation of additional dynamic features, the website used is applying an open source platform, namely Wordpress. While Wordpress theme is also implemented using WP mosque theme which can be downloaded for free on the website https://wpmasjid.com/download/. The features displayed are sufficient for information announcements, articles, prayer times, agenda of activities through videos and galleries, and other features that can be embedded dynamically. Share information via WhatsApp is also available. The needs of this website are enough to be implemented at the mosque XYZ. In addition, the mosque needs to be placed wireless fidelity (WiFi) as a hotspot so that coaching activities that require internet access can be available. Not only that, an Arduino with a WiFi module attached can be used to access WiFi by positioning it as a client and server. Arduino can be affixed with various devices that can be controlled remotely according to the IoT platform using the telegram application. Applications that are controlled, such as alarms with multiple functions that can be programmed, closed-circuit television (CCTV) to monitor online, and so on. Mosque worshipers can also access the internet through a variety of mobile and desktop devices.

The appearance of this website is responsive, where, when accessed on a mobile device, will follow the size of the display, as shown in Figure 5.
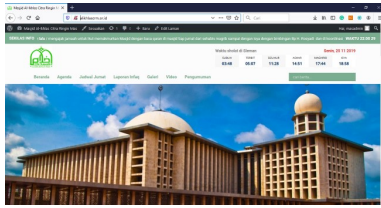

Figure 5: Website of the mosque XYZ.

After conducting the study in the network management in the mosque XYZ, there are several things that should be considered in implementing the placement of WiFi router, including:

1. The existence of WiFi in a residential neighborhood of the mosque XYZ, apparently there are customers who use the internet network access only to play online games, so if the router is installed, it will make incompatible with the aim of building workgroups or education for teenagers and the community who need internet access.

2. The existence of customers who distribute username and password to their friends to access the internet.

3. Subscription fees when using a connection via the internet per month with unlimited access is considered.

So with various considerations and input from the community members related to this matter, the network installation for internet access is done stand alone. Where the router for the access point used is sometimes not connected to the internet through the residential neighborhood network, but if it is needed for unlimited internet access, the router can be connected directly via the residential neighborhood network. Connection for internet access can use a modem if needed for internet access can by filling in internet pulses on the Simcard used. This Simcard is inserted into the modem. The configuration of the router used is shown in Figure 6.

Figure 6: Router configuration.

Figure 5 shows the network connection on the router and several workstations or devices. It will au-tomatically form a diagram by generating each internet protocol (IP) address. This screen display is to edit and it is enough to move the cursor and click the mouse on the box or icon on the display. So the graphical user interface (GUI) is quite interactive in its use even in its setting of login.

5 CONCLUSIONS

In implementing digital information technology for mosque XYZ, what is needed first is information and transparent reporting of funds, so for this purpose, it is necessary to create a mosque website. The next thing, for the need for information technology implementation in the mosque, it is necessary to place WiFi as a hotspot area that can be accessed by worshipers and peoples for the education and activities of the mosque management and the surrounding community. From the aspect of WiFi placement, it is expected that various alarm implementations will be developed that can be controlled through an android application on a cellphone or television as a digital information board whose content can be remote using the telegram application without making any android application. In this case, WiFi can not only be used as a hotspot but can also be used to develop application based-on the internet of things (IoT) and remote control using an android application. The information paper doesn't need to be shared anymore, just use the information that is on the mosque's website and distributed directly to WhatsApp. Videos or documentaries on mosque activities do not need to be stored on the website, simply uploaded to Youtube and the link embedded into the website so that it does not overburden the mosque website hosting capacity.

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